

Notice of Allowability

Application No.

10/764,256

Examiner

LUU MATTHEW

Applicant(s)

KNUEPPEL ET AL.

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to February 28, 2006.
2. ☒ The allowed claim(s) is/are 20-23 and 27-30; which are renumbered to claims 1-8.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 30 July 2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other



MATTHEW LUU
PRIMARY EXAMINER

DETAILED ACTION

Ready For Allowance Without Traverse

This application is in condition for allowance except for the presence of claims 1-19, 24-26 and 31-43 directed to the invention II and the non-elected species without traverse. Accordingly, claims 1-19, 24-26 and 31-43 have been cancelled.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

-The present invention comprises a sensing system for a vehicle passenger restraint system having a plurality of sensors symmetrically arranged in at least one row, each row containing a driver side sensor and a passenger side sensor.

The closest prior art, Mattes et al (6,487,482) shows (Figs. 1 and 2) a trigger (FIRE signal) device for a restraint system has an acceleration sensor arrangement (1). This acceleration sensor arrangement (1) has two acceleration sensor elements, of which one has a sensitivity axis in the longitudinal direction (X) and the other has a sensitivity axis in the transverse direction (Y) of the motor vehicle. Thus, given two acceleration sensor elements that have different sensitivity axes, a reciprocal plausibility check can be carried out.

However, Mattes et al fail to disclose "a transmission check algorithm to check whether the sensor module is receiving valid sensor data from its corresponding sensor, wherein the transmission check algorithm comprises a counter that increments when

the sensor data exceeds a transmission check threshold, and wherein the transmission check algorithm sets a transmission check flag used to determine whether to send the fire request when the counter reaches a counter threshold".

-Bullinger et al (6,980,097) disclose (Fig. 1) a sensing system comprises four proximity sensors (1A, 1B, 2A and 2B) and two acceleration sensors (4 and 5). This system also includes a plausibility check algorithm for activating the vehicle-occupant protection devices such as airbags.

-Foo et al (6,341,252) disclose (Fig. 2) a restraint system (10) includes a crash sensing system comprising a plurality of crash sensors (28 and 30). Each crash sensor (28 and 30) provides a crash acceleration signal having an electrical characteristic indicative of sensed crashed acceleration.

-Diller (5,040,118) discloses an apparatus for employing multiple crash evaluation algorithms comprise the FIRE vote signals and the expert signals, wherein the vote signals and the expert signals are summed to provide a summation signal. The restraint system is actuated when the value of the summation signal exceeds a threshold level.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

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preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUU MATTHEW whose telephone number is (571) 272-7663. The examiner can normally be reached on Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JACK KEITH can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Luu



**MATTHEW LUU
PRIMARY EXAMINER**